

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE			
INFORMATION DISCLOSURE STATEMENT		Docket Number: 10554/3	
Application Number 10/666,231	Filing Date September 18, 2003	Examiner Hoang V. Nguyen	Art Unit 2821
Title SHAPED-REFLECTOR MULTIBEAM ANTENNAS		Applicant(s) Hay et al.	

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Alexandria, VA 22313-1450

1. In accordance with the duty of disclosure under 37 C.F.R. § 1.56 and in conformance with the procedures of 37 C.F.R. §§ 1.97 and 1.98 and M.P.E.P. § 609, attorney(s) for Applicant(s) hereby bring the reference(s) listed on the attached modified PTO Form No. 1449 to the attention of the Examiner. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the reference(s) be made of record therein and appear among the "References Cited" on any patent to issue therefrom.
2. A copy of each patent, publication or other information listed on the modified PTO form 1449 is enclosed, except as otherwise indicated.

Dated:

MARCH 4, 2005

By:

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT***(use as many sheets as necessary)*Sheet **1** of **4****Complete if Known**

Application Number	10/666,231
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First Named Inventor	HAY, Stuart Gifford et al.
Art Unit	2821
Examiner Name	Not yet assigned
Attorney Docket No	10554/3

US PATENT DOCUMENTS

Examiner Initials [*]	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
		US-4,298,877	11-03-1981	Sletten, C.J.	
		US-			
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FOREIGN PATENT DOCUMENTS

Examiner Initials [*]	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				

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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**



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NON PATENT LITERATURE DOCUMENTS

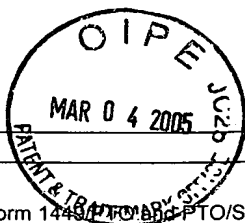
Examiner Initials *	Cite No ¹	Include name of Author (in CAPITALS), title of the article, (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		HAY, S.G., "Subreflector shaping to improve the multiple-beam performance of Cassegrain antennas", Electronics Letters, 1987, vol. 23, no. 15, pp. 789-791.	
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		CLARRICOATS, P.J.B. and OLVER, A.D., "Corrugated horns for microwave antennas", Peter Peregrinus Ltd, London, 1984.	
		PONTOPPIDAN, K., "Technical description of GRASP7 and GRASPC", TICRA Engineering Consultants, S-359-03, 1993.	
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		HAY, S.G., "Program DRASYS", Esoft, CSIRO Division of Radiophysics, 1992, Australia.	
		GRANET, C., JAMES, G.L. and PEZZANI, J., "A new dual-reflector feed system for the Nancay radiotelescope", IEEE Transactions on Antennas and Propagation, 1997, vol. 45, pp.1366-1373.	
		WOOD, P.J., "Reflector antenna analysis and design", Peter Peregrinus Ltd, London, 1980, pp. 86-93.	

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NON PATENT LITERATURE DOCUMENTS

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		CLARRICOATS, P.J.B. and POULTON, G.T., "High efficiency microwave reflector antennas - A review", Proceedings of the IEEE, 1977, vol. 65, pp. 1470-1504.	
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		WESTCOTT B S ET AL: "Dual-reflector synthesis based on analytical gradient-iteration procedures". IEE PROCEEDINGS: MICROWAVES, ANTENNAS AND PROPAGATION, IEE, STEVENAGE, HERTS, GB, vol. 142, no. 2, 1 April 1995 (1995-04-01), pages 129-35, XP006004221, ISSN: 1350-2417. section 3.	
		DUAN D-W ET AL: "A GENERALIZED DIFFRACTION SYNTHESIS TECHNIQUE FOR HIGH PERFORMANCE REFLECTOR ANTENNAS". IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, IEEE INC. NEW YORK, US, vol. 43, no. 1, 1995, pages 27-40, XP000491303. ISSN: 0018-926X. * figure 1 *	

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